

Work Order ID 67938

Tuesday, April 05, 2011 10:02:48 AM



Page 1

Item ID: D350-636-015

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 4/4/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 4/8/2011 Req'd Qty: 1.00

Customer:

Reference:

Run Start



Approvals: Process Plan: H

Date: 11-04-5

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4168	A								
IIN-D350-636	H								

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy blue file and type labels per PPP D350-636-015 CHG 001

002

N/A H

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

110

0.00



Skidtubes

0.00

Skidtubes

Memo

1- Pick D2600-3 Bent

2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg D4168

3- Drill pilot holes for blade fitting bolt holes using DT8983. Open to 0.500", deburr, section H-H

4- Locate DT8330 off of blade fitting bolt holes and drill pilot holes for blade fitting, section H-H

5- Drill fwd step holes using DT9616. Ensure proper positioning. Ali holes as per dwg D4168, detail A

6- Drill pilot holes as per Dwg D4168 sheet 4 (D4168-1 details). Drill using drill Jig DT8150 & DT8863A for first side only DT8863B for second side (detail B)

7- Clecko DT8863B on second side of tube and drill pilot holes for detail B.
SECOND SIDE

8- Drill most FWD wearplate hole using DT9678 locating off of 66.54" hole.

9-Open up holes of Detail A to 0.297" (total of 2 holes per side) and .201" (total of 1 hole per side) open holes of detail D section H-H to 0.500" as per dwg D4168

10-Weld D2744 Cap as per Dwg D4168 and QSI 004. Fill grooves in bend left from bending as per QSI 004

11-H-6

BB 11/04/07

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
StampA/R Aluminum Rod batch: *M110577**BE 11/04/07*

11-Grind welds flush as per Dwg D4168

*DP**11-4-7*

120



QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

0.00

Memo

0.00

Suloulog

130



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

*Suloulog**(Signature)*

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

140

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

11-4-8

150

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

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Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

160

0.00



Skidtubes

0.00

Skidtubes

Memo

1-Open up holes of Detail C and ground handling section AL-AL to 0.625"
(total of 8 holes per side)
as per dwg D4168.

2-Open up holes of Detail B to 0.750" (total of 4 holes per side)
as per dwg D4168.

3- Open float hole to 0.500" (4 per side) section AJ-AJ

Open wearplate holes to size as per dwg (4 holes per sides) , section CG-CG

4-Chamfer holes of Detail B, C, ground handling section AL-AL and float holes
section AJ-AJ per dwg D4168 (welding instructions on sheet 8)

5-Deburr and blow out all chips from inside of tube

6- Prepare tube for welding, remove alodine as required.

7-Bond web D2739 in place as per QSI 015

A/R ☐☐☐ Sikaflex-291 batch: 116748 ☐☐☐
exp. date: 12/01/15

8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D4168 and D4170-1
& QSI004

(welding instructions on sheet 8)

A/R ☐☐☐ Aluminum Rod batch: M116577

9- At section AJ-AJ drill out x-bolt spacer to 0.404"

BE 11/04/08

BB 11/04/08

BB 11/04/11

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Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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10-Grind welds flush as per Dwg D4168

11-Spot face ground handling holes section (total of 4 places per side) as per
dwg D4168, section AL-AL

12- C'bore section CG-CG

13- Deburr holes

11/04/12
11-4-12

170



QC

Quality Control

QC10- Inspect visual per QSI004- ground welds 0.00

Memo

0.00

11-04-12

1 0

180



QC

Quality Control

QC5- Inspect part completeness to step on W/O 0.00

Memo

0.00

11 04 13 ①

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Start Date:	4/4/2011	Start Qty:	1.00		Cust Item ID:	
Required Date:	4/8/2011	Req'd Qty:	1.00		Customer:	
Reference:						

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190 	Pressure Wash per QSI005 4.3	0.00				1		BL 11-4-13.	
HandFinish	Memo	0.00							
Hand Finishing	Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.								
200 	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00				1		BL 11-4-13.	
Powdercoat	Memo	0.00							
Powder Coating	START TIME: 2:45 OVEN TEMPERATURE: 320° FINISH TIME: 3:15								
210 	QC3- Inspect Part Finish	0.00				1		IL 11/04/14	
QC	Memo	0.00							
Quality Control	Inspect for foreign object per QSI 024								

W/O:		WORK ORDER CHANGES					
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Required Date: 4/8/2011 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220	HandFinishing	0.00							
	HandFinish								
Hand Finishing	Memo 1- Install inserts as per Dwg D4168	0.00				1	0	11404/14	
230	HandFinishing	0.00							
	HandFinish								
Hand Finishing	Memo 1-Inspect for Foreign Objects 2-Spray inside of tube with "LPS-3" batch: <u>U/A</u> 3-Install blade fitting D3488-041, wearshoes and ground handling hardware as per dwg D4168 SIKA FLEX 241 BATCH: <u>M116198</u> EXP DATE: <u>12/01</u> 4-assemble o'ring to plug as per dwg D3492 and apply o'ring lube A/R 55-o'ring lube batch: <u>M14189</u> 5-Coat all exposed fasteners with "LPS Procyon" batch: <u>114596</u>	0.00				1	0	11404/14	

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Required Date: 4/8/2011 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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240	QC5- Inspect part completeness to step on W/O	0.00							
-----	---	------	--	--	--	--	--	--	--



QC	Memo	0.00							
----	------	------	--	--	--	--	--	--	--

Quality Control

W 11 04 15 ①

250	Pick Kit	0.00							
-----	----------	------	--	--	--	--	--	--	--



Packaging	Memo	0.00							
-----------	------	------	--	--	--	--	--	--	--

Packaging

Cup 18 ①

260	QC4- 100% Inspect kits for completeness	0.00							
-----	---	------	--	--	--	--	--	--	--



QC	Memo	0.00							
----	------	------	--	--	--	--	--	--	--

Quality Control

*****ensure antiseize is on AN8C21A bolts*****

S. 11/10

①

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Customer:

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Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
270	Packaging	0.00							
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPPD350-636-015								
	Location: <u>PP 6857</u>								
	PPP rev: _____								
280	QC21- Final Inspection - Work Order Release	0.00							
QC	Memo	0.00							
Quality Control									

MF
11-04-18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Picklist Print

Tuesday, April 05, 2011 10:02:54 AM

Page 1

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Parent Item: D350-636-015

Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 4/4/2011


Required Date: 4/8/2011

Start Qty: 1.00

Required Qty: 1.00


Comments: IPP rev:A 10.09.28 new issue DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

AN3C34A  BOLT		Purchased	No			230	Each	20.0000	1	1			
--	--	-----------	----	--	--	-----	------	---------	---	---	--	--	--


Location	Loc Qty	Loc Code
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ST353	20	
116003	20	

AN3C36A  BOLT		Purchased	No			230	Each	209.0000	4	4			
--	--	-----------	----	--	--	-----	------	----------	---	---	--	--	--

Location	Loc Qty	Loc Code
----------	---------	----------

FG	14	
101261	4	
116590	10	
FP-B	71	
111925	71	
ST303	24	
116381	2	
116590	22	
ST353	100	
117125	100	

AN3C37A  BOLT		Purchased	No			230	Each	0.0000	1	1			
--	--	-----------	----	--	--	-----	------	--------	---	---	--	--	--

116003
110317
117010

W/O:		WORK ORDER CHANGES					
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Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 4/4/2011

Required Date: 4/8/2011

Start Qty: 1.00

Required Qty: 1.00

AN3C42A Purchased No 230 Each 60.0000 1 1
BOLT

Location	Loc Qty	Loc Code
ST354	60	
106176	60	
D3873-1 Manufactured No 230 Each 177.0000 7 7		
Bushing		

Location	Loc Qty	Loc Code
ST088	177	
64567	77	
64760	100	
D4154-041 Manufactured No 230 Each 2.0000 1 1		
Wearplate Assembly		

Location	Loc Qty	Loc Code
FP009	2	
65092	2	
D4170-1 Manufactured No 230 Each 38.0000 4 4		
Bushing		

Location	Loc Qty	Loc Code
LG	4	
63322	4	
LG002	34	
65912	23	
66158	11	

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Shop Packet Print

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Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 4/4/2011

Required Date: 4/8/2011

Start Qty: 1.00

Required Qty: 1.00

D4171-1 Manufactured No

230 Each

16.0000

1

1



Bushing



22 11/04/12

Location

Loc Qty

Loc Code

ST135

16

65646

16

X1

MS21043-3

Purchased No

230 Each

1,072.000

5

5



Nut



22 11/04/13

Location

Loc Qty

Loc Code

FG

80

103691

80

FP-B

16

112314

16

ST301

976

112314

976

X5

NAS1149C0363R

Purchased No

230 Each

4,848.000

9

9



Washer



22 11/04/13

Location

Loc Qty

Loc Code

ST297

4848

113889

79

114742

4769

X9

NAS1515H3L

Purchased No

230 Each

341.0000

4

4



WASHER



22 11/04/13

Location

Loc Qty

Loc Code

FG

40

102472

40

ST277

301

113362

301

X4

Tuesday, April 05, 2011 10:02:56 AM

Shop Packet Print

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Start Date: 4/4/2011

Required Date: 4/8/2011

Start Qty: 1.00

Required Qty: 1.00

AN960JD816

Purchased

No

250

Each

73.0000

2

2



1/2" washer, Alum

Location

Loc Qty

Loc Code

FP-A

73

106043

73

D2744

Manufactured

No

110

Each

47.0000

1

1



Cap

Location

Loc Qty

Loc Code

LG002

47

62715

18

65086

29

D2600-3-BENT

Manufactured

No

110

Each

9.0000

1

1



Extrusion Bent

Location

Loc Qty

Loc Code

LG

9

66875

9

D2743

Manufactured

No

160

Each

33.0000

8

8



Crossbolt Spacer

Location

Loc Qty

Loc Code

LG001

33

64003

33

D2739

Manufactured

No

160

Each

8.0000

1

1



350 I Beam

Location

Loc Qty

Loc Code

LG

8

66981

8

Tuesday, April 05, 2011 10:02:56 AM

Shop Packet Print

Page 4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Tuesday, April 05, 2011 10:02:56 AM

Page 5

Work Order ID: 67938

Parent Item: D350-636-015

Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 4/4/2011

Required Date: 4/8/2011

Start Qty: 1.00

Required Qty: 1.00

D3490-3 Manufactured No

160 Each

37.0000

4 4



Cross Bolt Spacer

Location

Loc Qty

Loc Code

LG001

37

63556

8

66968

29

D3490-1 Manufactured No

160 Each

31.0000

4 4



Cross Bolt Spacer

Location

Loc Qty

Loc Code

LG001

31

62450

31

ALS4-1032-225 Purchased No

230 Each

1,305.000

4 4



Insert

Location

Loc Qty

Loc Code

FP-B

224

110768

224

ST282

1081

110768

1081

D3492-041 Manufactured No

230 Each

156.0000

8 8



Plug Assembly

Location

Loc Qty

Loc Code

FP-B

156

63994

16

65068

20

66937

120

BE 11/04/11

BE 11/04/11
B 67773 H

11/04/13

11/04/13 PTO

Tuesday, April 05, 2011 10:02:56 AM

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Page 5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
11/04/13	230	Replace Assemble with D2594-3 / pin 65518 "o" rings Permanent change!!	JH	11/04/13	x8		

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Tuesday, April 05, 2011 10:02:56 AM

Work Order ID: 67938



Parent Item: D350-636-015



Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 4/4/2011

Required Date: 4/8/2011

Start Qty: 1.00

Required Qty: 1.00

AN8C35A	Purchased	No	230	Each	44.0000	1	1
							<u>11/04/13</u>
BOLT							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP-A	44	
115188	3	
<u>115960</u>	18	<u>X1</u>
116874	23	

D3488-041	Manufactured	No	230	Each	13.0000	1	1
							<u>11/04/13</u>
Blade Fitting Assembly, LH							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP007	2	
61689	2	
FP008	11	
<u>62002</u>	11	<u>X1</u>

AN6C44A	Purchased	No	230	Each	54.0000	4	4
							<u>11/04/13</u>
BOLT							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FG	2	
103964	2	
FP-B	2	
115936	2	
ST344	50	
<u>116874</u>	50	<u>X4</u>

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Tuesday, April 05, 2011 10:02:57 AM

Work Order ID: 67938



Parent Item: D350-636-015



Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 4/4/2011

Required Date: 4/8/2011

Start Qty: 1.00

Required Qty: 1.00

MS21083C8

Purchased

No

230

Each

83.0000

1

1



NUT



ML 4/10/11

Location

Loc Qty

Loc Code

FP-B

13

115884

13

ST303

70

115884

0

117010

20

117291

50

X1

D3631-1

Manufactured

No

230

Each

108.0000

8

8



Washer



ML 4/10/11

Location

Loc Qty

Loc Code

FP-A

8

63647

8

ST072

100

66959

100

8

AN960C10L

NAS1149C0332

Purchased

No

230

Each

0.0000

4

4



washer

M117291



X4 ML 4/10/11

D2745

Manufactured

No

230

Each

64.0000

8

8



Bushing



ML 4/10/11

Location

Loc Qty

Loc Code

FP-A

23

63315

23

ST021

41

63315

41

B67764

X8

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Tuesday, April 05, 2011 10:02:57 AM

Work Order ID: 67938



Parent Item: D350-636-015



Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 4/4/2011

Required Date: 4/8/2011

Start Qty: 1.00

Required Qty: 1.00

AN960C816L Purchased No 230 Each 0.0000 1 1



WASHER NAS1149C083221 M114915



(x1) M114915

D3492-043 Manufactured No 230 Each 83.0000 8 8



M114915 PTO =>

Plug Assembly

Location

Loc Qty

Loc Code

FP-B

83

1367765

x5

66150

8

66931

75

AN3C6A Purchased No 230 Each 280.0000 4 4



M114915

BOLT

Location

Loc Qty

Loc Code

FP-A

45

111982

45

ST351

235

111982

10

116419

75

116549

50

116704

100

MS21043-6 Purchased No 230 Each 583.0000 4 4



M114915

NUT

Location

Loc Qty

Loc Code

FG

20

103693

20

FP-A

88

112314

88

ST301

475

112314

475

W/O: 67938		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
11/04/14	230	Assemble with NAS1611-013 / 1117291 "O" rings Permanewt - Done on prev. W/O	HL	11/04/14	20		

Part No: D350-636-015 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Tuesday, April 05, 2011 10:02:57 AM

Work Order ID: 67938

Parent Item: D350-636-015

Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 4/4/2011

Required Date: 4/8/2011

Start Qty: 1.00

Required Qty: 1.00

D3493-1

Manufactured No

250 Each

61.0000 2 2



Washer

Location

Loc Qty

Loc Code

ST062

61

62677

21

66975

40

MS21083C8

Purchased No

250 Each

83.0000 2 2



NUT

Location

Loc Qty

Loc Code

FP-B

13

115884

13

ST303

70

115884

0

117010

20

117291

50

AN8C21A

Purchased No

250 Each

56.0000 2 2



BOLT

Location

Loc Qty

Loc Code

ST345

56

116381

56

D2741

Manufactured No

250 Each

66.0000 1 1



Blade, 350 Skidtube

Location

Loc Qty

Loc Code

ST466

66

61341

26

63589

40

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D4168-041	350 SKIDTUBE ASSEMBLY, LH
	X			D4168-042	350 SKIDTUBE ASSEMBLY, RH
		X		D4168-043	350 SKIDTUBE ASSEMBLY, LH
			X	D4168-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1		1		D3488-041	BLADE FITTING, LH
	1		1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
8	8	8	8	D3631-1	WASHER
7	7	7	7	D3873-1	BUSHING
1	1	1	1	D4154-041	WEARPLATE ASSEMBLY
1				D4168-1	SKIDTUBE WELDMENT, LH
	1			D4168-2	SKIDTUBE WELDMENT, RH
		1		D4168-3	SKIDTUBE WELDMENT, LH
			1	D4168-4	SKIDTUBE WELDMENT, RH
4	4	4	4	D4170-1	SPACER
1	1	1	1	D4171-1	BUSHING
4	4	4	4	ALS4-1032-225	INSERT
4	4	4	4	AN3C6A	BOLT
1	1	1	1	AN3C34A	BOLT
4	4	4	4	AN3C36A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN8C35A	BOLT
9	9	9	9	AN960C10	WASHER (OR NAS1149CO363R)
4	4	4	4	AN960C10L	WASHER (OR NAS1149CO332R)
1	1	1	1	AN960C816L	WASHER (OR NAS1149CO832R)
5	5	5	5	MS21043-3	NUT
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

GENERAL NOTES:

- MATERIAL: MAKE D4168-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- FINISH:
CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- UNITS: INCHES UNLESS OTHERWISE NOTED
- BREAK SHARP EDGES: N/A
- IDENTIFICATION: N/A
- WEIGHT: D4168-041/-042/-043/-044 = 32.3 LBS
- WELD PER DART QSI 004
- FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM YIELD TENSILE STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
POWDER COATING WITH MEK DEGREASER.
- SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL
- SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

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UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 61938

PL 11-024-5

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2010-09-15

A		NEW ISSUE		SC	10.08.09
REV.	DESCRIPTION			BY	DATE
DESIGN	SC	DART AEROSPACE USA, INC.			
DRAWN	SC	PORT HADLOCK, WA			
CHECKED		DRAWING NO.	REV. A		
MFG. APPR.		D4168	SHEET 1 OF 11		
APPROVED		TITLE	SCALE		
DE APPR.		350 SKIDTUBE ASSEMBLY	NTS		
DATE	10.08.09			<small>COPYRIGHT © 2010 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

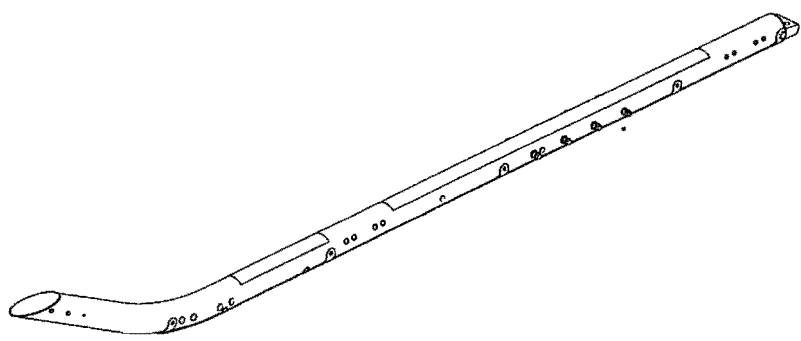
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

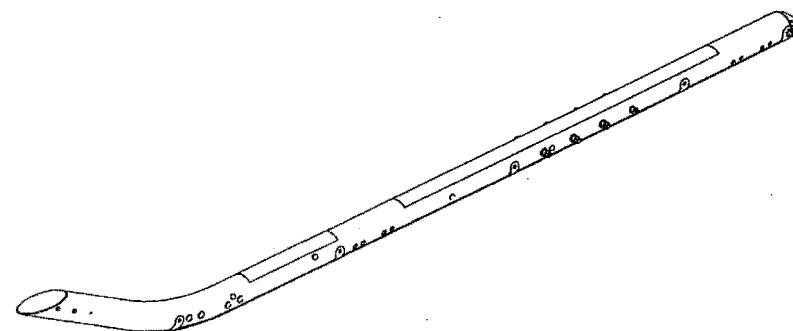
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D4168-041 350 SKIDTUBE ASSEMBLY, LH



D4168-042 350 SKIDTUBE ASSEMBLY, RH

w/062935

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2010-09-15
JW

DESIGN	SC	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
DRAWN	SC		
CHECKED	<i>[Signature]</i>	DRAWING NO. D4168	REV. A
MFG. APPR.	<i>[Signature]</i>	SHEET 2 OF 11	
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	350 SKIDTUBE ASSEMBLY	NTS
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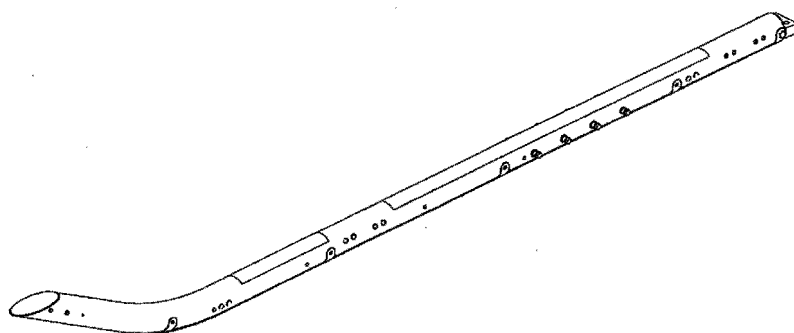
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

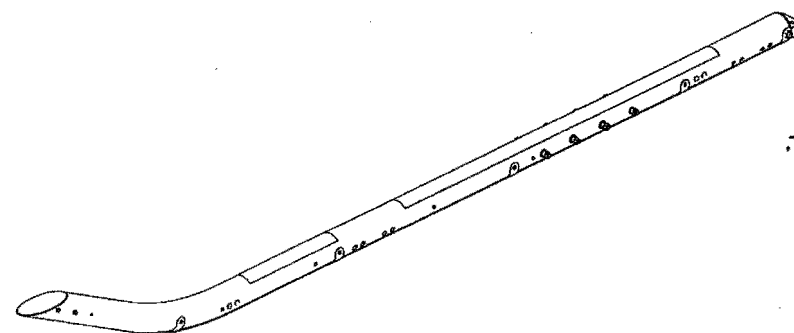
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D4168-043 350 SKIDTUBE ASSEMBLY, LH



D4168-044 350 SKIDTUBE ASSEMBLY, RH

alt 67938

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2010-09-15

DESIGN	SC	DART AEROSPACE USA, INC.	
DRAWN	SC	PORT HADLOCK, WA	
CHECKED		DRAWING NO. D4168	REV. A
MFG. APPR.		SHEET 3 OF 11	
APPROVED		TITLE	SCALE
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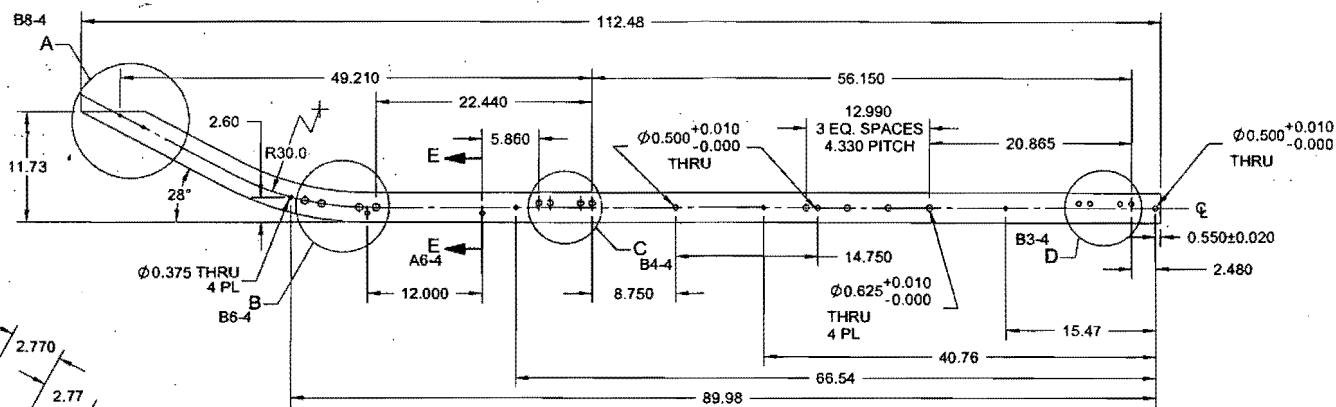
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

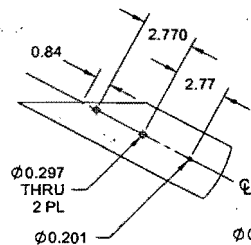
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

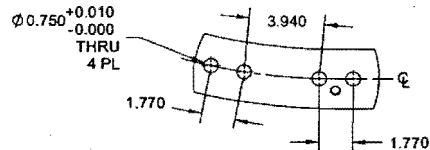
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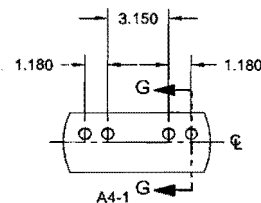
D4168-1 LH SKIDTUBE



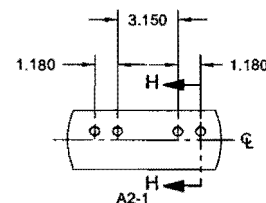
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SCALE 2X



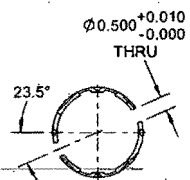
DETAIL B
SCALE 2X



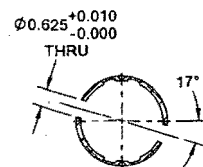
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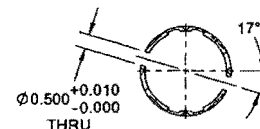
DETAIL D
SCALE 2X



SECTION E-E
SCALE 3X, 2 PL



SECTION G-G
SCALE 3X, 4 PL



SECTION H-H
SCALE 3X, 4 PL

DESIGN	SC	DART AEROSPACE USA, INC.	
DRAWN	SC	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D4168	SHEET 4 OF 11
APPROVED		TITLE	SCALE
DE APPR.		350 SKIDTUBE ASSEMBLY	NTS
DATE	10.08.09	<small>COPYRIGHT © 2010 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS UNCLASSIFIED AND IS SUPPLIED ON THE OFFICIAL RECORD THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY MANNER WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

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2010-09-15
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W 67936

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

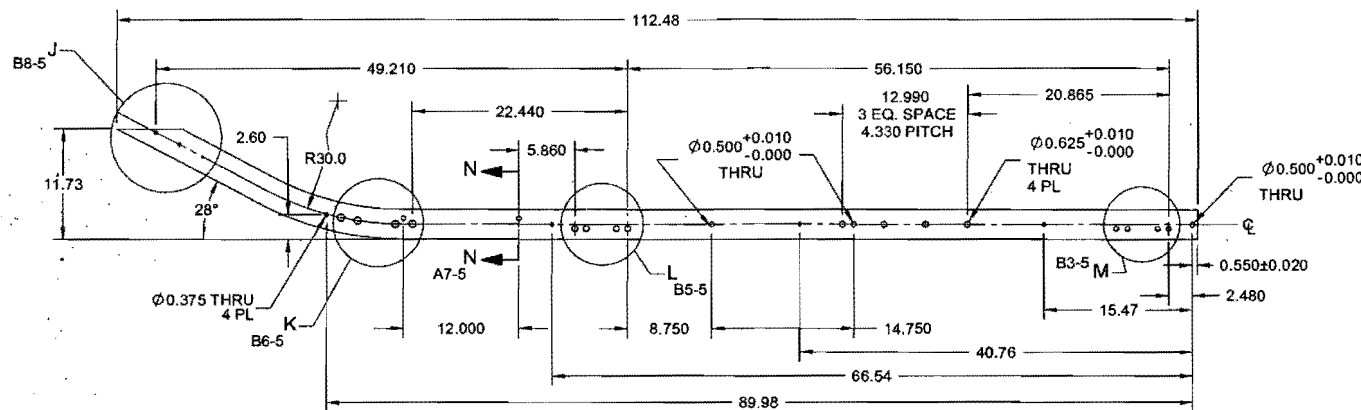
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

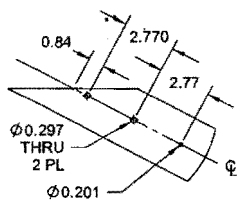
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

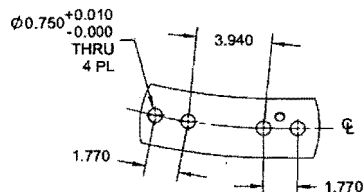
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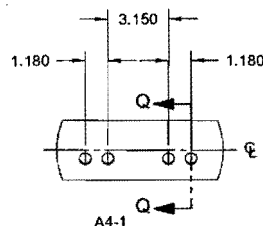
D4168-2 RH SKIDTUBE



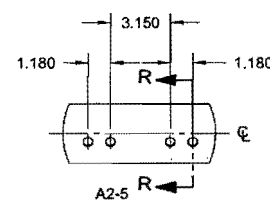
DETAIL J
SCALE 2X



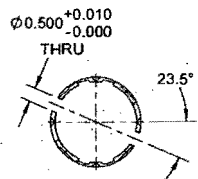
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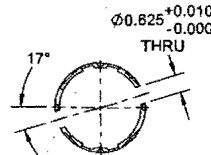
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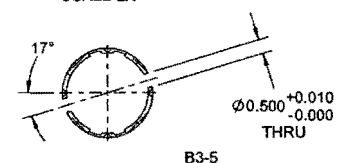
DETAIL M
SCALE 2X



SECTION N-N
SCALE 3X, 2 PL



SECTION Q-Q
SCALE 3X, 4 PL



SECTION R-R
SCALE 3X, 4 PL

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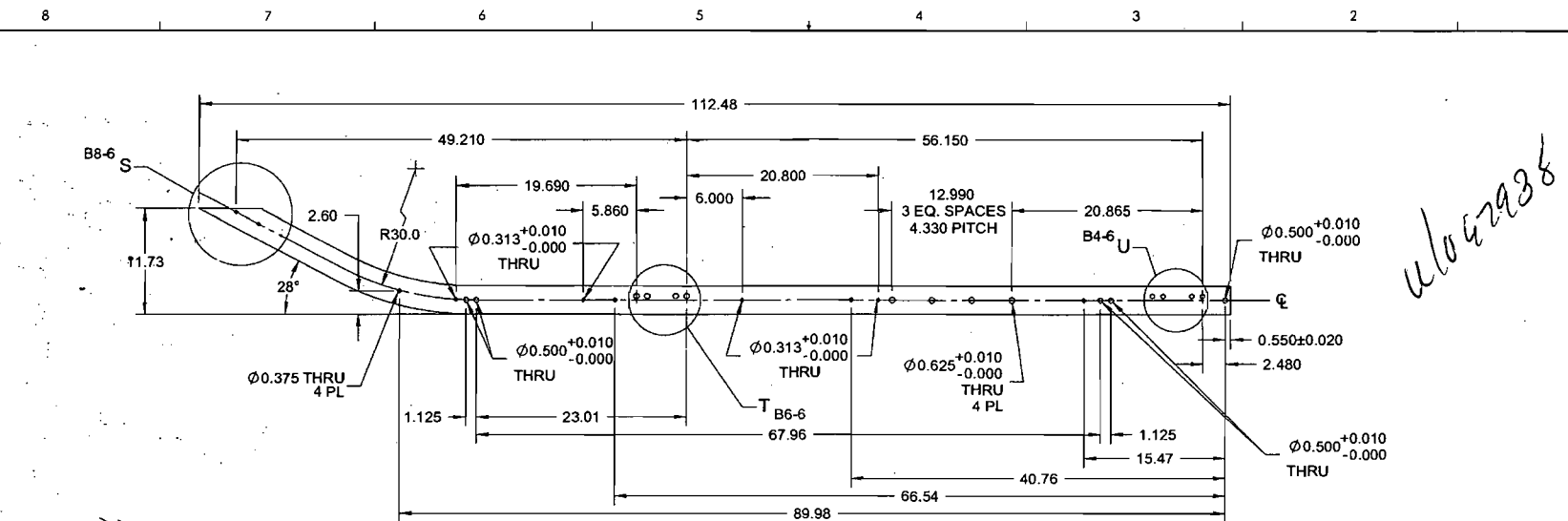
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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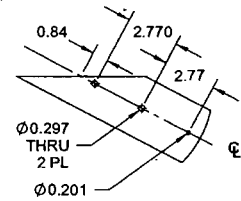
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

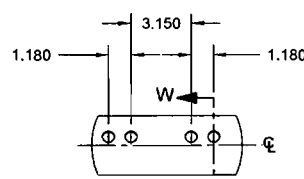
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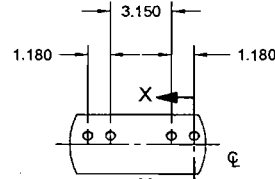
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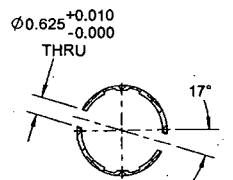
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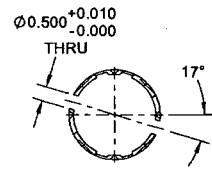
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SCALE 2X



DETAIL U
SCALE 2X



SECTION W-W
SCALE 3X, 4 PL



SECTION X-X
SCALE 3X, 4 PL

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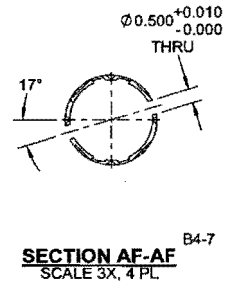
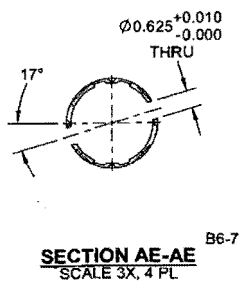
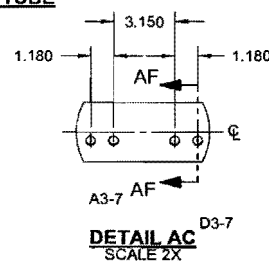
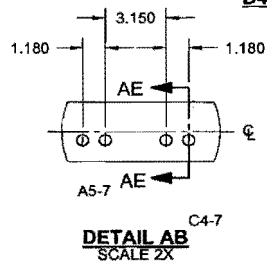
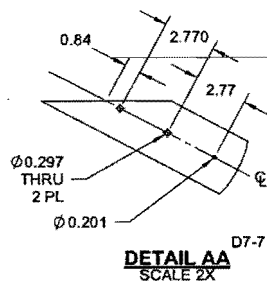
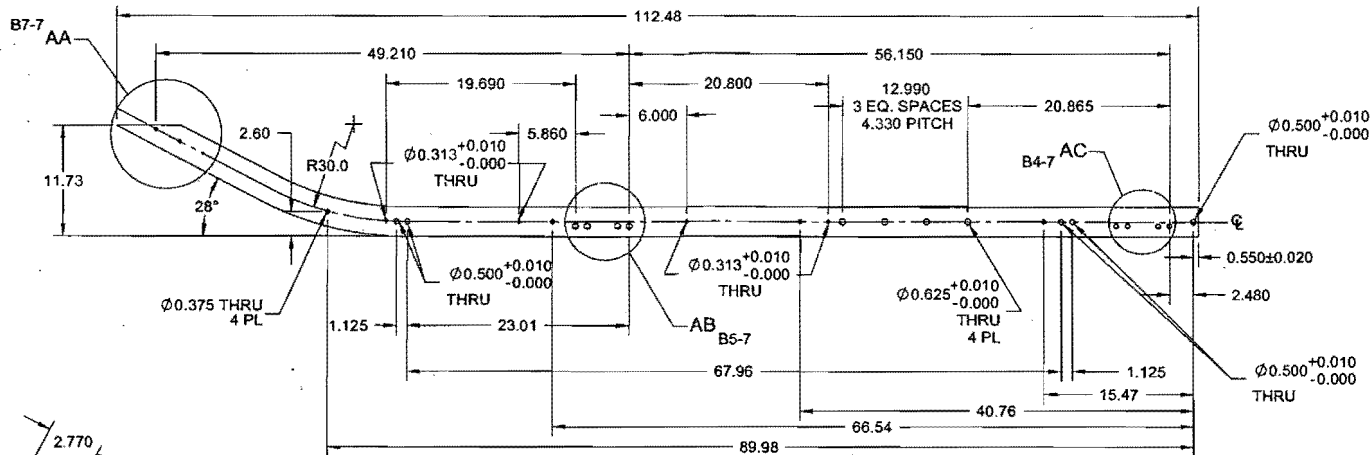
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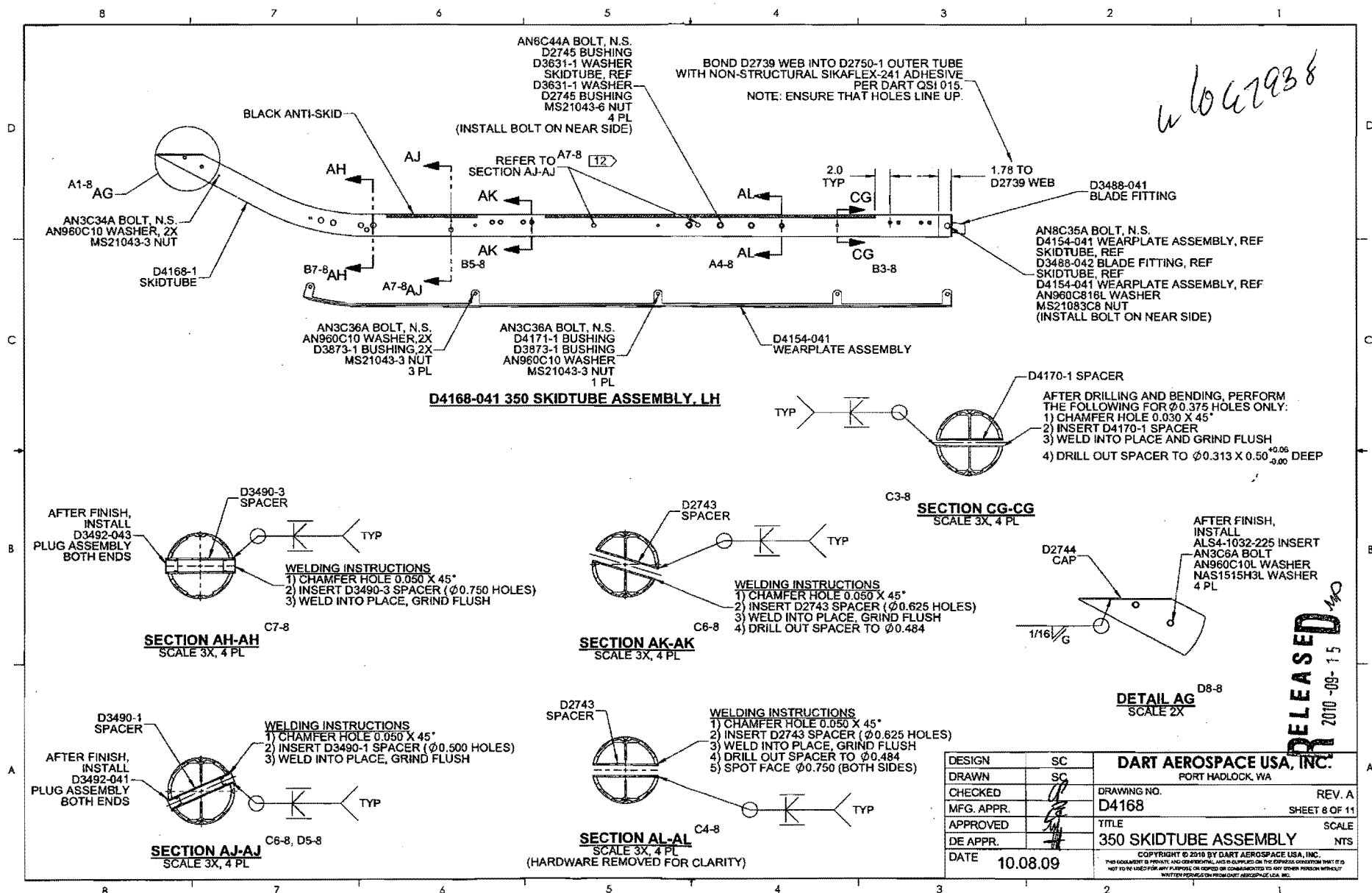
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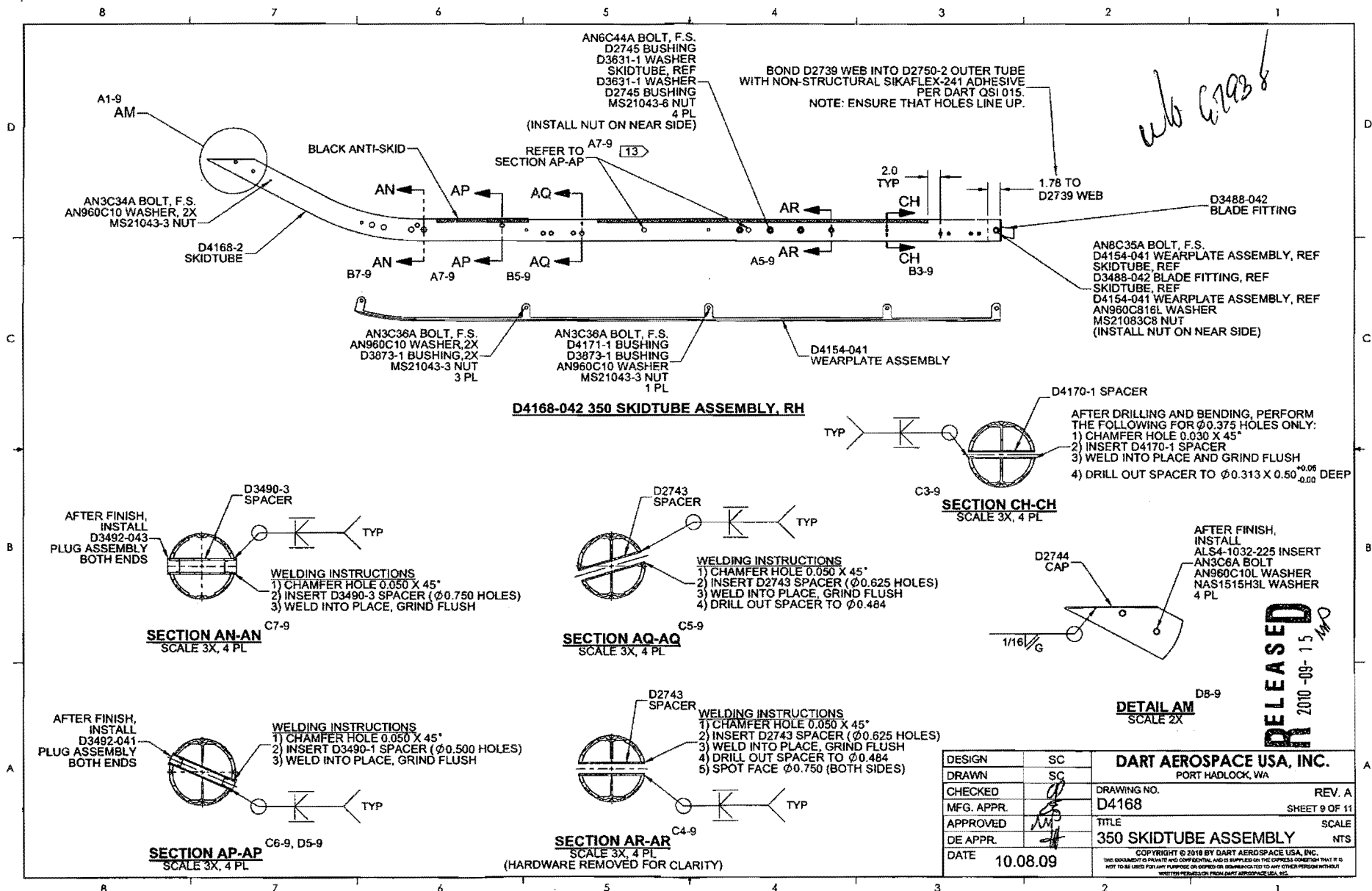
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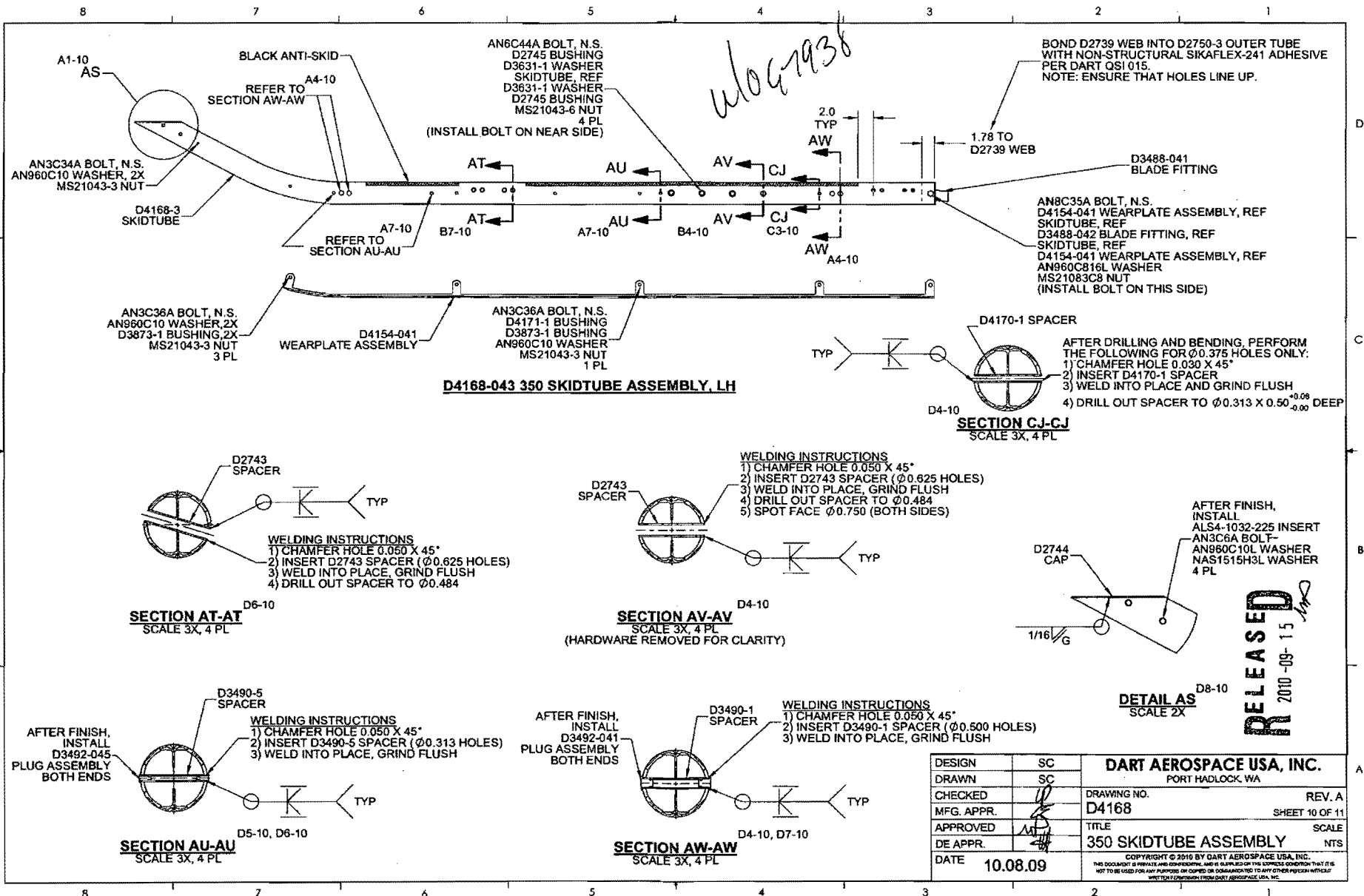
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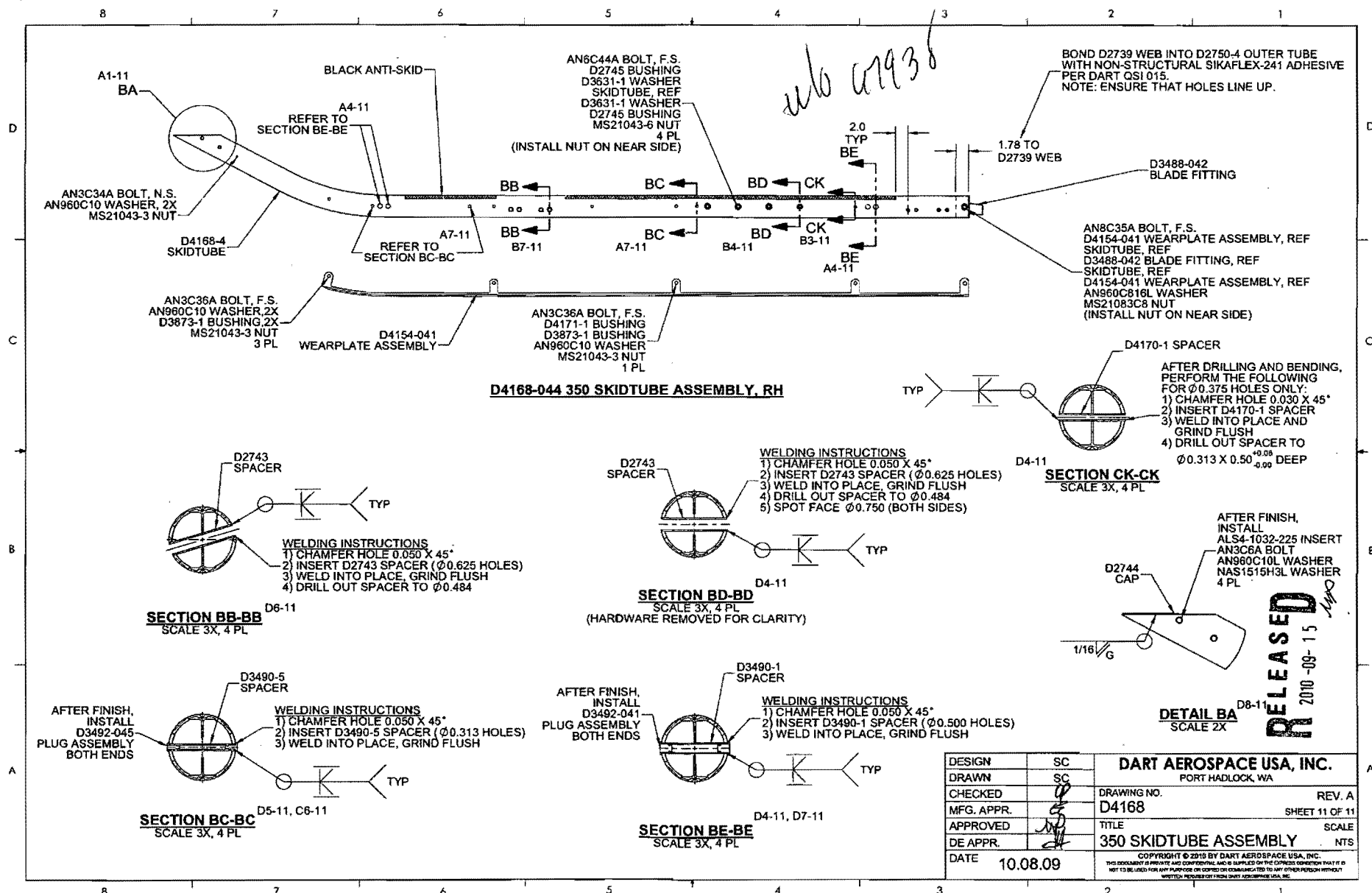
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